

REMARKS

Applicants cancel claim 5. Claims 1-4 remain pending in the application. Applicants amend claims 1-2 and 4 for clarification, and refer to Figs. 6, 10, and their corresponding description in the specification for exemplary embodiments of and support for the claimed invention. No new matter has been added.

The Examiner objected to Figs. 1-2 under MPEP § 608.02(g) for failing to designate that which is old as “Prior Art.”

Applicants enclose a Replacement Sheet for Figs. 1-2 with the added caption “Prior Art,” and respectfully request that the Examiner withdraw the objection.

The Examiner objected to claims 1-3 for antecedent basis informalities, which Applicants correct by amendment. Accordingly, Applicants request that the Examiner withdraw the objection.

Claim 5 was rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention.

The Examiner objected to the feature “application” for not being disclosed in the specification. Applicants amend claim 4 to clarify this feature by reciting “traffic” being identified based on packet attributes, and refer to page 9, lines 29-37 of the specification for support of this feature. Applicants respectfully request that the Examiner withdraw the § 112, ¶ 2 rejection.

Claim 1 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application No. 2002/0172205 to Tagore-Brage et al. in view of U.S. Patent No. 6,628,613 to Joung et al. Applicants respectfully traverse the rejection.

The Examiner relied upon the description in Tagore-Brage et al. of stopping only lower priority data in combination with the description of receiving an additional PAUSE frame in Joung et al. as alleged suggestion of the claimed invention. Applicants respectfully

point out to the Examiner that the cited portion of Tagore-Brage et al. only includes a brief description of an alternative of stopping only lower priority data while maintaining higher priority data flow. And the cited portions of Joung et al. only include description of extending a PAUSE time when receiving an additional PAUSE frame. Please see, e.g., Fig. 4 of Joung et al. As such, even assuming, arguendo, that it would have been obvious to one skilled in the art at the time the claimed invention was made to combine Tagore-Brage et al. and Joung et al., such a combination would have, at most, suggested maintaining higher priority data flow and extending the PAUSE time for lower priority data when receiving an additional PAUSE frame. Such a combination would still have failed to disclose or suggest the claimed feature of restricting different traffic flow depending on whether a PAUSE frame is received during a PAUSE time.

In other words, even assuming, arguendo, that it would have been obvious to one skilled in the art at the time the claimed invention was made to combine Tagore-Brage et al. and Joung et al., such a combination would still have failed to disclose or suggest,

“[a] congestion controller for an Ethernet switch comprising
a plurality of transmission queues which have different priorities,
receiving means for receiving a PAUSE frame,
restriction means for restricting transmission traffic from the transmission queues by the received PAUSE frame, wherein
the restriction means restricts the transmission traffic from a transmission queue of a lowest priority by the PAUSE frame received at a time other than a PAUSE time, and restricts the transmission traffic from the transmission queue of a higher priority, by the PAUSE frame received during the PAUSE time,” as recited in claim 1. (Emphasis added)

Accordingly, Applicants respectfully submit that claim 1 is patentable over Tagore-Brage et al. and Joung et al., separately and in combination, for at least the foregoing reasons.

Claims 2-3 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S.

Patent No. 7,061,864 to van Everdingen. Applicants amend claim 2 in a good faith effort to clarify the invention as distinguished from the cited reference, and respectfully traverse the rejection.

The Examiner relied upon the backpressure warning signal technique described in van Everdingen as alleged disclosure of the claimed traffic shaping. The cited portions of van Everdingen only include, however, description of sending a backpressure warning signal (bpws) and a backpressure clearance signal (bpcs) to stop and start data flow and to thereby control data flow rate. Therefore, van Everdingen, as cited and relied upon by the Examiner, only describes starting and stopping data transmission by such bpws or bpcs, and does not disclose the claimed feature of separately shaping traffic by restricting transmission speed upon receiving a PAUSE frame.

In other words, van Everdingen, as cited and relied upon by the Examiner, fails to disclose,

“[a] congestion controller for an Ethernet switch comprising
a transmission queue,
a receiving means for receiving a PAUSE frame,
a shaping means for shaping transmission traffic from
the transmission queue by the received PAUSE frame, wherein
the shaping means restricts transmission speed of the
transmission traffic from the transmission queue to or below a
transmission speed based on a predetermined shaping value by
the receiving means receiving the PAUSE frame,” as recited in
claim 2. (Emphasis added)

Accordingly, Applicants respectfully submit that claim 2, together with claim 3 dependent therefrom, is patentable over van Everdingen for at least the foregoing reasons.

Claim 4 stands rejected under 35 U.S.C. 102(e) as being anticipated by Joung et al.; and claim 5 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Joung et al.

in view of Tagore-Brage et al. Applicants amend claim 4 to incorporate features that correspond to those of claim 5, and respectfully traverse the rejection.

The Examiner conceded that Joung et al. fail to disclose the claimed feature of identifying an “application” based on packet attributes, but contended that the “priority” described in Tagore-Brage et al. sufficiently suggests this feature. Applicants, again, respectfully point out that the cited portion of Tagore-Brage et al. only includes description of the overall stopping of only lower priority data while maintaining higher priority data flow. And such portion of Tagore-Brage et al. does not include any description of notifying an identification of traffic to another switch. Thus, even assuming, arguendo, that it would have been obvious to one skilled in the art at the time the claimed invention was made to combine Tagore-Brage et al. and Joung et al., such a combination would still have failed to disclose or suggest the claimed feature of identifying a traffic and notifying another switch of the identified traffic.

In other words, even assuming, arguendo, that it would have been obvious to one skilled in the art at the time the claimed invention was made to combine Tagore-Brage et al. and Joung et al., such a combination would still have failed to disclose or suggest,

“[a] congestion controller for an Ethernet switch comprising
a transmission queue,
an identifying means for identifying an input port which causes congestion by counting packets resident in the transmission queue, corresponding to the input port, and
a transmission means for transmitting a PAUSE frame to another switch which is connected to the identified input port, wherein
the identifying means further identifies a traffic based on attributes of the packets, and
the transmission means notifies the other switch of the identified traffic by the PAUSE frame transmitted thereto,” as recited in claim 4. (Emphasis added)

Accordingly, Applicants respectfully submit that claim 4 is patentable over Tagore-Brage et al. and Joung et al., separately and in combination, for at least the foregoing reasons.

In view of the remarks set forth above, this application is in condition for allowance which action is respectfully requested. However, if for any reason the Examiner should consider this application not to be in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged to Deposit Account No. 50-1290.

Respectfully submitted,

/Dexter Chang/

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